ABSTRACT

A micro-shape transcription method has preparing a mold having a transcription face on which a concavo-convex pattern is formed, pressing the transcription face against a base material softened by heating, then forcibly separating the mold from the base material to transcribe a reverse pattern of the concavo-convex pattern to the surface of the base material, wherein when assuming a temperature for pressing the mold against the base material as T_1 (°C), a temperature for separating the mold from the base material as T_2 (°C), thermal expansion coefficients of the mold and the base material as α_a and α_b, and the maximum distance between the transcription center of the transcription face and the concavo-convex pattern as d (mm), the following relations (1) and (2):

$$T_1 \geq T_2 \qquad \ldots (1)$$

$$|\alpha_a - \alpha_b| \cdot (T_1 - T_2) \cdot d \leq 4 \times 10^{-2} \qquad \ldots (2)$$

are simultaneously satisfied.